

**REMARKS**

In response to the restriction requirement, Applicants hereby elect Group 1, claims 1-4, 6-11, 14, and 19-21 with traverse. In doing so, Applicants reserve the right to pursue the subject matter of the non-elected claims in one or more divisional or continuing application(s). Applicants respectfully traverse the restriction requirement.

The Office has required restriction among the four allegedly patentably distinct inventions below:

Group I: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=1$ ,  $b=1$  and  $c=1$ ;

Group II: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=1$ ,  $b=1$  and  $c=2$ ;

Group III: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=1$ ,  $b=2$  and  $c=1$ ;

Group IV: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=2$ ,  $b=1$  and  $c=1$ ;

Group V: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=2$ ,  $b=2$  and  $c=1$ ;

Group VI: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=2$ ,  $b=1$  and  $c=2$ ;

Group VII: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=1$ ,  $b=2$  and  $c=2$ ;

Group VIII: claims 1-4, 6-11, 14, and 19-21, drawn to compounds, compositions, process of preparing and method of use of the compounds of formula I where  $a=2$ ,  $b=2$  and  $c=2$ ; and

Group IX, claims 22 and 23 drawn to the intermediate compounds of formula VI.

Applicants hereby elect Group I, claims 1-4, 6-11, 14, and 19-21, where  $a=1$ ,  $b=1$ , and  $c=1$ .

Applicants respectfully traverse the requirement for restriction employing the PCT's unity of invention standard. The action notes that Groups I-VIII do not relate to a single general inventive concept under PCT Rule 13.1 for lacking the same or corresponding special technical features under PCT Rule 13.2. Applicants respectfully direct the Examiner's attention to MPEP 1850, which refers the reader to Chapter 10 of the International Search and Preliminary Examination Guidelines which can be obtained from WIPO's web site ([www.wipo.int/pct/en/texts/gdlines.htm](http://www.wipo.int/pct/en/texts/gdlines.htm)) for examples. In particular, section 10.17 relating to "Markush practice" and the accompanying examples are invaluable for assessing unity of invention in the present case.

Section 10.17 indicates that in the "Markush" situation, the "same or corresponding special technical features as defined in Rule 13.2, is considered met when the alternatives are of a similar nature." It continues, defining "of a similar nature" as where the following criteria are fulfilled:

(A) all alternatives have a common property or activity; and

(B)(1) a common structure is present, that is, a significant structural element is shared by all of the alternatives, OR

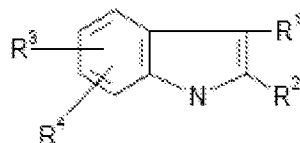
(B)(2) in cases where the common structure cannot be the unifying criteria, all alternatives belong to a recognized class of chemical compounds in the art to which the invention pertains.

Section 10.17, copy enclosed, goes on to further clarify each of these criteria, however, the examples provide a clearer understanding.

The examples below illustrate unity of invention can be found, even where there are various R groups pending from a core structure, and, importantly, even where an alternative ring structure is present, as in examples 19 and 20.

10.38 *Example 18: Common Structure*

*Claim 1: A compound of the formula:*

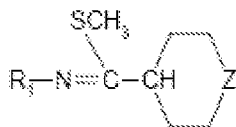


wherein  $R^1$  is selected from the group consisting of phenyl, pyridyl, thiazolyl, triazinyl, alkylthio, alkoxy, and methyl;  $R^2$ - $R^4$  are methyl, benzyl, or phenyl. The compounds are useful as pharmaceuticals for the purpose of enhancing the capacity of the blood to absorb oxygen.

In this case the indolyl moiety is the significant structural element that is shared by all of the alternatives. Since all the claimed compounds are alleged to possess the same utility, unity is present.

10.39 *Example 19: common structure:*

*Claim 1: A compound of the formula:*



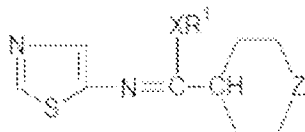
wherein  $R_1$  is selected from the group consisting of phenyl, pyridyl, thiazolyl, triazinyl, alkylthio, alkoxy, and methyl;  $Z$  is selected from the group consisting of oxygen (O), sulfur (S), imino (NH), and methylene ( $-CH_2-$ ).

*The compounds are alleged to be useful as pharmaceuticals for relieving lower back pain.*

In this particular case the iminothioether group  $-N=C-SCH_3$  linked to a six atom ring is the significant structural element which is shared by all the alternatives. Thus, since all the claimed compounds are alleged to possess the same use, unity would be present.

10.40 Example 20: Common Structure

Claim 1: A compound of the formula:



wherein  $R^1$  is methyl or phenyl,  $X$  and  $Z$  are selected from oxygen (O) and sulfur (S).

The compounds are useful as pharmaceuticals and contain the 1,3-thiazolyl substituent which provides greater penetrability of mammalian tissue which makes the compounds useful as relievers for headaches and as topical anti-inflammatory agents.

All compounds share a common chemical structure, the thiazole ring and the six atom heterocyclic compound bound to an imino group, which occupy a large portion of their structure. Thus, since all the claimed compounds are alleged to possess the same use, unity would be present.

Applicants respectfully assert that like examples 18, 19, and 20 above, Formula I, as claimed, satisfies the criteria set out in 10.17 and thus possesses the same or corresponding special technical features and therefore satisfies the unity of invention standard.

In formula I,

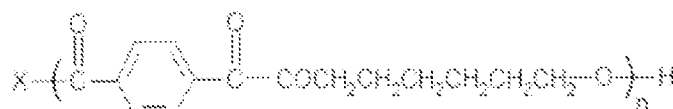
(A) all alternatives are alleged to possess the same utility, e.g. they are nicotinic acetylcholine agonists; and

(B)(1) a common structure is present in that the biaryl diazabicycloalkane moiety is a significant structural element shared by all of the alternatives,  
accordingly, unity of invention is present.

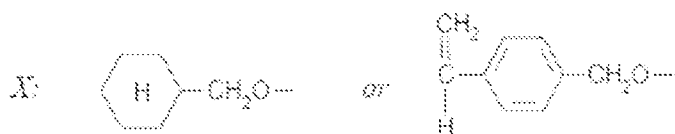
To present a full picture, Applicants note several examples where the criteria are not met, including those where a difference in structure is alleged to have a different property or effect or where there is no common structure. The present claims, however, are more analogous to the

prior examples. (Chapter 10 presents additional examples, but those presented here are believed to be the most relevant to the present application.)

10.42 Example 22: Common Structure:



$$100 \geq n \geq 50$$



The compound obtained by esterifying the end COOH radical of known polyhexamethyleneterephthalate with  $\text{H}-\text{CH}_2\text{O}-$  has a thermal degradation resistant property, due to the reduced number of free COOH radicals which cause thermal degradation. In contrast, the compound obtained by esterifying the end COOH radical of known polyhexamethyleneterephthalate with a vinyl compound containing a  $\text{CH}_2=\text{CH}-\text{C}_6\text{H}_4-\text{CH}_2\text{O}-$  moiety serves as a raw material for a setting resin when mixed with unsaturated monomer and cured (addition reaction).

All esters covered by the claim do not have a property or activity in common. For example, the product obtained through esterification with the " $\text{CH}_2=\text{CH}$ " vinyl compound does not have a thermal degradation resistant property. The grouping in a single application is not allowed.

10.43 Example 23: No Common Structure

*Claim 1: A herbicidal composition consisting essentially of an effective amount of the mixture of A 2,4-D(2,4-dichloro-phenoxy acetic acid) and B a second herbicide selected from the group consisting of copper sulfate, sodium chlorate, ammonium sulfamate, sodium trichloroacetate, dichloropropionic acid, 3-amino-2,5-dichlorobenzoic acid, diphenamid (an amide), ioxynil (nitrile), dinoseb (phenol), trifluralin (dinitroaniline), EPTC (thiocarbamate), and simazine (triazine) along with an inert carrier or diluent.*

The different components under B must be members of a recognized class of compounds. Consequently in the present case a unity objection would be raised because the members of B are not recognized as a class of compounds, but, in fact, represent a plurality of classes which may be identified as follows:

(a) inorganic salts:

copper sulfate  
sodium chlorate  
ammonium sulfamate

(b) organic salts and carboxylic acids:

sodium trichloroacetate  
  
dichloropropionic acid  
3-amino-2,5-dichlorobenzoic acid

(c) amides:

diphenamid

(d) nitriles:

ioxynil

(e) phenols:

dinoseb

(f) amines:

trifluralin

(g) heterocyclic:

simazine

Applicants have not amended the claims, as the requirement is not yet final. In the event the requirement is made final, Applicants, while reserving their right to petition the requirement, intend to delete the subject matter drawn to non-elected subject matter.

Applicants respectfully request reconsideration of the requirement for restriction in light of the comments herein. Early reconsideration and allowance of all pending claims is respectfully requested.

The Commissioner is hereby authorized to charge any fee or underpayment thereof or credit any overpayment to deposit account no. 26-0166.

Early reconsideration and allowance of all pending claims is respectfully requested. The examiner is requested to contact the undersigned attorney if an interview, telephonic or personal, would facilitate allowance of the claims.

Respectfully submitted,

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